

HIGH-STRENGTH BOLTED CONNECTION STRUCTURE WITH
NO FIRE PROTECTION

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ABSTRACT OF THE DISCLOSURE

10 The present invention provides a high-strength
bolted connection structure for realizing a steel
structure with no fire protection, which is capable of
adequately assuring high-temperature strength of the
connection in a high temperature region of 650°C, and
which does not depend on a fire protection or protective
15 structure using fire resistant material, wherein ultra-
high-strength bolts having excellent fire resistance and
excellent resistance to delayed fracture are used, which
bolt have a tensile strength at room temperature (TS) of
1200 N/mm² or higher, and satisfies the relation that the
20 shear proof stress at high temperature of 650°C (σ_{sh}) is
not less than (coefficient of slip at room temperature
(μ) \times design bolt tension (N_0)) / (safety factor for long
term load (γ) \times cross-sectional area of bolt shank
(bA_s)).